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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/540,268

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EXAMINER

SYED, NABIL H

ART UNIT

PAPER NUMBER

2609

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/540,268

Applicant(s)

USAMI, MITSUO

Examiner

Nabil H. Syed

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>7/7/2006 and 6/23/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Objections

2. Claims 18, 21 and 24 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim 18 is objected because it is a duplicate of claim 11.

Claim 21 is objected because it is a duplicate of claim 12.

Claim 24 is objected because it is a duplicate of claim 13.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 7-8,12,14-15,19-22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably

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convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

As of claim 7-8,12,14-15,19-22, the term "second memory" is not defined in the Application filed. In the specification applicant define only one memory 16 having first random number 11 and second random number 22 (see fig. 2, and page 3, line 26 through page 4, lines 1-3).

For examination purposes it is assumed that "first memory" and "second memory" are the same memory.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 6-9, 14-15, 19-20, 22-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Bandy et al. (6,002,344).

As of claim 6, Bandy discloses a semiconductor device (via a tag 102; see fig 3) comprising :

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a memory (note: it is inherent that RFID tag have a memory to store the identification number and other data) which memorizes a first random number (via a tag id number, manufacture number and lot number) and other information; (see col. 3, lines 8-18) and a memory address counter (via a counter/shift register 312, see fig 3) indicating an address of the memory (see col. 5, lines 5-9), wherein the first random number in the memory is set in the memory address counter (via setting the tag ID number in shift/register counter 32, since the random number is stored in the tag at the time of the manufacture the tag ID number is also stored at the time of the manufacture and hence can be used as a number to set in the counter as used by the applicant) and information in the memory is sent out-non-contact condition with a time difference according to a numeric value of the first random number (see col.6, lines 63-67 through col. 7, lines 1-11).

As of claim 7, Bandy discloses an IC tag (via a RFID tag 102, see fig. 3) for transmitting first information to a reception unit, comprising:
a first memory which memorizes the first information (via tag having the tag ID as the first information) (note: it is inherent that RFID tag have memory to store the identification number and other data to transmit to the reader) (see col. 3, lines 8-18);
a second memory which memorizes second information (via tag storing a manufacture number and lot number) (see col. 3, lines 8-18);
and a counter in which its count value indicates a bit address of the first memory (via counter/shift register 312, see fig 3) (also see col. 5, lines 4-8),

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wherein the IC tag carries out count-up or count-down of a count value of the counter according to a clock signal received from the reception unit (via counter 312 increment its count when it receives the signal from the reader unit) and the IC tag sets information of the second memory as an initial value of the counter and after the count value of the counter reaches a specified code, the first information stored in the bit address of the first memory indicated by the count value is sent out to the reception unit successively (via tag transmitting the tag ID or manufacture number or lot number when the counter output matches any one of the tag ID or manufacture number or lot number (see col. 7, lines 12-33).

As of claim 8, Bandy discloses the IC tag wherein the second memories are provided in plural number and the IC tag sets the second information of any one of the second memories as an initial value of the counter (note: Bandy discloses that if the third tag identifier does not resolve the contention, further reading can be done by adding more identification numbers in the tag (see col. 4, lines 7-12).

As of claim 9, Bandy discloses an IC tag further comprising a mode-switching portion (via a instruction interpreter 310, see fig. 3), wherein the IC tag selects the second information of any one of the second memories by means of the mode switching portion and sets it as an initial value of the counter (via instruction interpreter 312 indicating which of the three numbers (tag ID, manufacture, lot number) are requested by the reader) (see col. 5, lines 22-27).

As of claim 14, Bandy discloses a reading method for reading the first information from an IC tag having a first memory (note: it is inherent that RFID tag have

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a memory to store the identification number and other data) which memorizes first information (via tag ID number; see col. 3, lines 8-18), a second memory which memorizes second information (via tag having a manufacture number and a lot number, see col. 3, lines 8-18) and a counter (via a counter/shift register 312, see fig 3) in which a count value thereof indicates a bit address of the first memory to the reception unit (via conter/shiftregister transmitting the response signal to the reader unit, during first read cycle, which is equal to the tag ID; see col. 7, lines 1-30), comprising:

transmitting a clock signal from the reception unit to the IC tag (via tag reader 104(see fig. 1,) transmitting an instruction signal; see col. 6, lines 65-66).

setting information of the second memory in the IC tag as an initial value of the counter (note: Bandy discloses that during the first read cycle clock increment instruction from the reader unit makes the tag to increment the counter 312 until the output matches the tag ID, see col. 6, lines 64-67 through col. 7, lines 1-11) ;

performing count-up or count-down of a count value of the counter according to the clock signal (see col. 7, lines 5-7); and

after the count value of the counter reaches a specified code, transmitting the first information stored in the bit address of the first memory indicated with the count value successively to the reception unit (via transmitting the tag ID when the counter value equals the tag ID (see col. 7, lines 7-11).

As of claim 15, Bandy discloses the reading method wherein the second memories of the IC tag are provided in plural number (note: Bandy discloses that if the third tag identifier does not resolve the contention, further reading can be done by

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adding more identification numbers in the tag (see col. 4, lines 7-12) and the second information of any one of the second memories is selected according to the mode switching signal and set up in the IC tag as an initial value of the counter (via sending the first read , second read and third read instruction to read tag ID, manufacture number and lot number respectively see col. 13, lines 14-24).

As of claim 19 and 20, Bandy discloses the IC tag wherein the counter and the second memory have the same bit number (via counter/shiftregister 312 and Tag ID having the same value, see col. 5, lines 5-9).

As of claim 22 and 23, Bandy discloses the IC tag wherein the first information is comprised of at least identification number and an error detection code for detecting an error in the identification number (note: Bandy discloses this function by tag having a tag ID and a error code in case the contention occurs. For example tag can transmit its error-code using checksum (see col. 3, lines 48-55).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this

Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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8. Claims 10, 12, 13, 21, 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bandy et al. (6,002,344) and in view of Raimbault et al. (6,177,858).

As of claim 10, Bandy discloses all the elements of the claimed invention as mentioned in claim 9 above but fails to explicitly disclose that the mode switching portion is a flip-flop.

Raimbault discloses an IC tag (via an electronic tag, fig. 1) wherein the mode-switching portion is a flip-flop (via electronic tag having a flip-flop in the logic circuit 4 to change the state of the tag; see fig.1, also see col. 7, lines 64-67 and col. 8, lines 1-7).

From the teaching of Raimbault it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the tag of Bandy to include a flip-flop in order to make the transponder easily switch between the read mode and transmit mode (see col. 11 and 18).

As of claim 12, Bandy discloses the IC tag wherein the counter and the second memory have the same bit number (via counter/shiftregister 312 and Tag ID having the same value, see col. 5, lines 5-9).

As of claim 13, Bandy discloses the IC tag wherein the first information is comprised of at least identification number and an error detection code for detecting an error in the identification number (note: Bandy discloses this function by tag transmitting its ID and error code. For example tag can transmit its error-code using checksum (see col. 3, lines 48-55).

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As of claim 21, Bandy discloses the IC tag wherein the counter and the second memory have the same bit number (via counter/shiftregister 312 and Tag ID having the same value, see col. 5, lines 5-9).

As of claim 24, Bandy discloses the IC tag wherein the first information is comprised of at least identification number and an error detection code for detecting an error in the identification number (note: Bandy discloses this function by tag having a tag ID and a error code in case the contention occurs. For example tag can transmit its error-code using checksum (see col. 3, lines 48-55).

9. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bandy et al (6,002,344) and in view of Chan (5,550,547).

As of claims 16 and 17 Bandy discloses all the elements of the claimed invention as mentioned in claim 7 above but fails to explicitly disclose that the specified code is zero.

Chan discloses an IC tag (via RF tag 120, see fig. 3) wherein the transponder transmits the data when the counter (via state counter 432) of the tag is at predetermined value, which is zero (see col. 6, lines 19-23).

From the teaching of Chan it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the IC tag of Bandy to have the tag transmit its data when the specified value of the counter is zero in order to make the interrogation process simpler and reduce the chances of collision.

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10. Claims 11 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bandy (6,002,344) and Raimbault (6,177,858) as applied to claim 10 above, and further in view of Chan (5,550,547).

The combination of Bnady and Raimbault discloses all the elements of the claimed invention as mentioned in claim 10 above, but fails to explicitly disclose that the specified code is zero.

Chan discloses an IC tag (via RF tag 120, see fig. 3) wherein the transponder transmits the data when the counter (via state counter 432) of the tag is at predetermined value, which is zero (see col. 6, lines 19-23).

From the teaching of Chan it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the IC tag of Bandy to have the tag transmit its data when the specified value of the counter is zero in order to make the interrogation process simpler and reduce the chances of collision.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Heng (6,538,563) discloses a semiconductor device (via RF transponder identification system and protocol).

Black et al. (5,986,570) discloses a semiconductor device (via a method for resolving signal collisions between multiple RFID transponders in a field).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nabil H. Syed whose telephone number is 571-270-3028. The examiner can normally be reached on M-F 7:30-5:00 alt Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynda Jasmin can be reached on (571) 270-3033. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nabil H Syed
Examiner
Art Unit 2609

N.S



BENNYTIEU
PRIMARY EXAMINER